

IN THE SPECIFICATION:

Please amend the Title of the Invention as follows:

**IMAGE CODING APPARATUS AND METHOD FOR CONTROLLING IMAGE CODING
MODE, IMAGE DECODING APPARATUS AND METHOD, AND IMAGE PICKUP
APPARATUS**

Please insert the following new paragraph after the Title and before the "TECHNICAL FIELD":

-- RELATED APPLICATIONS

This application is the U.S. National Phase under 35 U.S.C. § 371 of International Application No. PCT/JP2005/001137, filed on January 27, 2005, which in turn claims the benefit of Japanese Application No. JP 2004-032366 filed on February 2, 2004, Japanese Application No. JP 2004-046399 filed on February 23, 2004, Japanese Application No. JP 2004-046400 filed on February 23, 2004, Japanese Application No. JP 2004-103678 filed on March 31, 2004, and Japanese Application No. JP 2004-369604 filed on December 21, 2004, the disclosures of which Applications are incorporated by reference herein. —

Please amend the paragraph beginning on page 9 at line 14 and bridging page 10 as follows:

[0017] Still another embodiment of the present invention relates to an image coding apparatus. This image coding apparatus is such that, at the time of coding moving images, coding is performed, per frame that constitutes the moving image, based on any mode among an intra-frame coding mode, an inter-frame unidirectional predictive coding mode and an inter-frame bidirectional predictive coding mode, so as to generate a coded data sequence of the moving images, and the apparatus is characterized in that: when the moving images are coded using a predictive mode containing the inter-frame unidirectional predictive coding mode and the inter-frame bidirectional predictive coding mode, and it is determined that, in a frame coded in the inter-frame unidirectional predictive coding mode, a certain block constituting said frame is practically the same as a block, placed at the same position as the certain block, which lies in a reference frame on which a prediction is based, the coding is performed in a manner that information on a motion vector with the reference frame, instead of a flag indicating the determination, is appended into a coded data sequence of the block. Further, when a frame

existing between the frame coded in the inter-frame unidirectional predictive coding mode and the reference frame is coded in the inter-frame bidirectional predictive mode, the coding may also be performed on a block at the same position as the block to which the motion vector information has been appended, and a coding parameter may be appended into a coded data sequence.

Please amend the paragraph beginning on page 11 at line 14 and bridging page 12 as follows:

[0020] The frame coded in the inter-frame unidirectional predictive coding may be a ~~future~~ reference frame for the frame coded in the inter-frame bidirectional predictive mode. The code amount of motion vector information is larger when compared with the flag indicative of being practically the same as a block of a reference frame. However, according to this, the motion vector information is appended to at least a reference frame of frames coded in the inter-frame bidirectional predictive coding mode out of frames coded in the inter-frame unidirectional predictive coding mode. Hence, the loss of image which forms a problem when frames coded in the inter-frame bidirectional predictive coding mode are decoded can be prevented and at the same time the increase in code amount can be suppressed.

Please amend the paragraph beginning on page 45 at line 6 and bridging page 46 as follows:

[0074] The above-described technique will be explained using specific examples. FIG. 12 shows an example where moving images are coded by the MPEG-4 scheme. In the example shown in FIG. 12, three successive images 190a, 190b and 190c are coded as P-VOP, B-VOP and P-VOP, respectively. First, the image 190a is compressed and coded using the inter-frame forward predictive mode with I-VOP or P-VOP, located immediately prior thereto, as a reference image. Next, the image 190c is compressed and coded using the forward predictive mode with the image 190a, which is P-VOP located immediately prior thereto, as a reference image. At this time, a macroblock 192c is almost the same image as a macroblock 192a in the past reference image 190a and the difference is practically zero, and therefore the coding is performed using the “not_coded” flag. At a decoding, the image of the macroblock 192a is copied to the macroblock 192c. Subsequently, the image 190b is compressed and coded using the bidirectional predictive mode with the image 190a as a past reference image and the image 190c as a future reference

image. At this time, the macroblock 192c of the future reference image 190c corresponding to the macroblock 192b of the image 190b which is to be coded is coded using the “not_coded” flag, so that the macroblock 192b of the image 190b is similarly coded using the “not_coded” flag. At a decoding, the image of the macroblock 192a is copied to the macroblock 192b.

Please amend the paragraph beginning on page 69 at line 21 and bridging page 70 as follows:

[0118] FIG. 21 shows an example where a decision flag is appended to a macroblock header of B-VOP. In the example of FIG. 21, if the macroblock corresponding to a frame that B-VOP refers to in a backward direction is “not_coded”, a decision flag [[1]]330 will be appended at a prescribed position of the macroblock header 322, for example, the leading part thereof.

Please amend the paragraph beginning on page 73 at line 14 and bridging page 74 as follows:

[0124] FIG. 24 is a flowchart showing a procedure for an image decoding method according to the present embodiment. FIG. 24 shows a procedure in which the image decoding apparatus 350 decodes frames coded in an inter-frame bidirectional predictive mode. First, the decoding method decision circuit 380 acquires a decision flag appended to a prescribed position of the coded data sequence (S130), and verifies the type of the decision flag (S132). If the decision flag is of a value indicating that when a macroblock of a future reference frame of B-VOP is “not_coded”, a macroblock of BOP is also processed as a copy of a macroblock of a past reference frame (Y of S132), the decoding method decision circuit 380 instructs other circuits that the copy of a macroblock of the past reference frame be inserted to a macroblock of B-VOP (S134). If the decision flag is of a value indicating that the macroblock of B-VOP contains difference data (N of S132), the decoding method decision circuit 380 instructs other circuits that the difference data be decoded to generate an image of the macroblock of B-VOP (S136).